The MAC Flyer

MAY 1978

Fools Rush In . . . page 10

MILITARY AIRLIFT COMMAND

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The MAC Flyer

For Greater Safety and Efficiency
in MAC Air Operations

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A Tough Act To Follow

Col Ruel J. Neeley
Director of Safety

I was extremely pleased to be named the command's Director of Safety, particularly at a time when our safety program is producing excellent results. In terms of lives lost and equipment damaged, MAC's 1977 safety record is among the best ever—an achievement every one of us can be proud of. A lot of effort went into reducing our accident rate to its present level, and we'll have to make a greater effort to lower it even further.

The command's long-standing philosophy is that safety is an essential function of management, requiring commitment from people at all levels. The 1977 record proves that the commitment is there, and that it's working. It's interesting to note that units with exceptional safety records also excel in the other areas of mission accomplishment. There's no need to compromise safety for the sake of the mission or vice versa—it's simply a matter of personal dedication to doing the job *right*. When you've got that dedication, you've got a mission that's safe as well as effective.

Last year's record was good, but there's still room for improvement. For example, foreign object damage cost the command over half a million dollars in 1977; we can't afford that kind of price tag nor the carelessness that causes most of it. The command also recorded 207 dropped objects last year; again, carelessness was a major cause.

Two other areas need extra attention if we're to avoid loss of life in 1978. First, the number of near-midair collisions identified through Hazardous Air Traffic Reports clearly shows the world-wide scope and extreme severity of this problem. And although MAC had only one minor aircraft accident in 1977 resulting from unplanned contact with the ground, the experience of other commands and of civil aviation shows that controlled-flight-into-terrain accidents are still very much with us.

Colonel Neeley is no stranger to the airlift mission, having spent his entire career in tactical and strategic airlift. MAC's new Director of Safety has accumulated more than 10,000 flying hours and has commanded a support squadron, an aerial port, and a C-5 squadron. He has also had experience in maintenance, transportation, and civil engineering. Colonel Neeley's previous assignment was as commander of the 436th Aerial Port Squadron, Dover AFB, Delaware.—Ed.

Our 1977 record is a tough act to follow, but any record can be broken. We can do it if we don't let down, if we remember that *coping* with a problem is not the same thing as *solving* a problem, and if we stay individually committed to doing our very best on every job. The great majority of the burden, of course, will fall on MAC's "front-line troops"—the people who fly and support our aircraft. But don't forget: MAC safety people at all levels are ready and willing to provide all the help they can. After all, we'd all like to have a part in making 1978 our best year ever.

Fly safe and read *The MAC Flyer*.

Windshear for Pilots

by Lt Col Orlen L. Brownfield
Supervising Editor

Here's help for the aviator battling low-level windshear.

Last month we talked about windshear prognostication using the navigator's equipment. TAS readout compared with ground speed and the reported surface winds are entering arguments for the windshear equation. TAS - GS = altitude wind component. Compare this with the surface head/tailwind component and it can give you a windshear warning.

Here's a simple one. Altitude—500 feet; TAS—135 knots; GS—100 knots; surface wind—calm. Using the formula, TAS - GS you get: 135k - 100k = 35 knots at 500 feet. "Calm" surface winds give you a zero wind component. What this means is that you're going to lose that 35-knot headwind between 500 feet on final and touchdown. The loss can be gradual and only embarrass you because you're having a little trouble holding airspeed and maintaining glide slope. Or it could be the disastrous variety that causes the aircraft to lose 35 knots indicated airspeed in less than five seconds. But like we said last month, armed with this navigator-provided information, you're prepared and will carry extra airspeed on final.

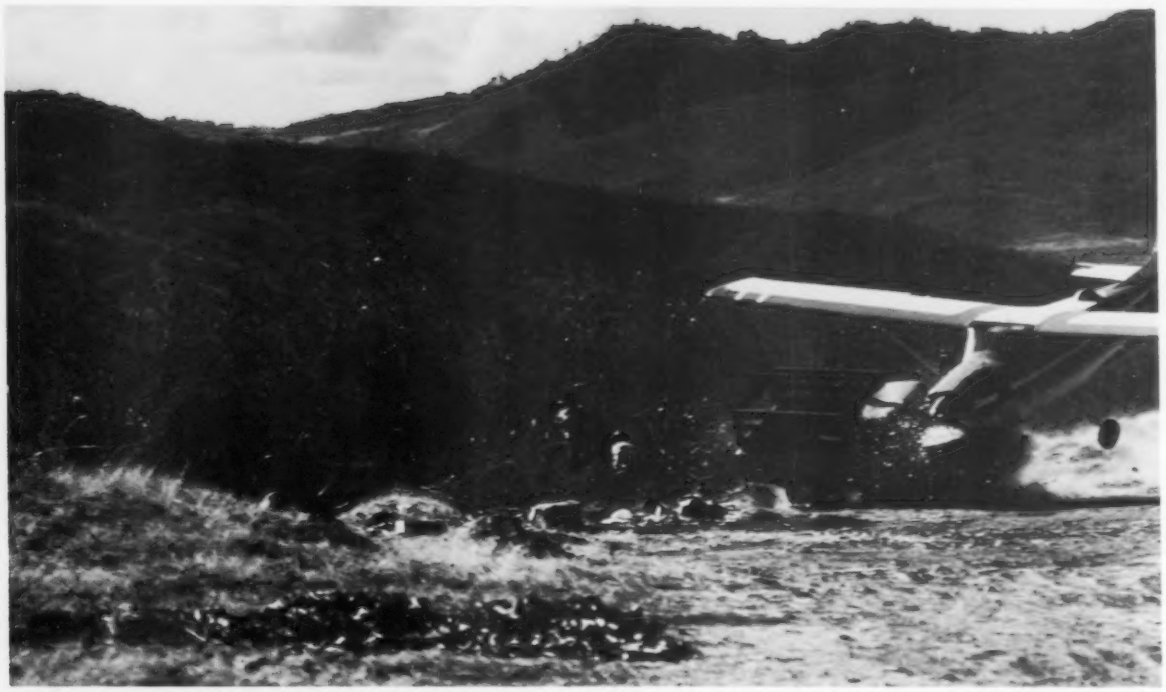
But suppose you aren't navigator equipped—are you destined to land in the approach lights? Not necessarily. You still have some instruments that can provide ample warning.

Obviously, if your bird is a dual-INS-equipped 141, the problem is pretty simple. The only thing you don't have up front is a TAS indication. But on the normal standard day, at the near-sea-level field elevations that you'll be transiting navigatorless, the difference between IAS and TAS is too little to worry about. It *can* become a problem in places like Peterson Field, Colorado (elevation 6,172 feet)—your TAS will be approximately 12 knots higher than your indicated. And that's a good rule of thumb—two knots per thousand feet of density altitude (at approach speeds).

So even without a navigator, you can compare your INS ground speed, IAS, and surface wind component to check for the possibility of windshear.

Now let's look at the worst situation—doppler inop, no navigator, no INS. The problem is a bit sticky, but you can still get an indication of horrendous head/tailwinds on final by studying the gauges and instruments that you have on board—VVI, torque or EPR, and your attitude indicator.

Generally, in a high tailwind condition, your rate of descent will be higher, power required to maintain glide slope will be less, and the pitch attitude will be lower than normal. The opposite is true in a high headwind condition—lower rate of descent, high power settings, and pitch higher than normal. When these three things appear in the proper



Tricky winds are something all pilots must cope with—sooner or later. Here, a plane bringing aid to earthquake victims crashes into a truck while trying to land on a mountain highway near Sanarate, Guatemala. The two "booking" troops escaped from the truck just before the prop ripped through the cab. Miraculously, no one was injured. © National Geographic Society

combination, you'll know you're in high head/tailwind conditions. And if this doesn't correlate with surface information, there's the possibility of windshear. Not real scientific, but at least you've got an indication.

Can we be more scientific? Yes, with the magic of the nautical mile, the 12-inch foot, the 360-degree circle, and the 60-minute hour, we can easily convert glide slope information, feet per minute, and knots into meaningful data.

For instance, did you know that you can determine your vertical velocity in knots by merely dropping the last two zeros from your VVI readout? That's right, 700 feet per minute is approximately seven knots—6,000 fpm is about 60 knots, and so on. (The error is approximately 1%, hardly worth calculating.) Armed with this kind of stuff, you can calculate some interesting things—like angle of attack—or ground speed on final approach. Hmmm.

Here's how it works: remember the old 60-to-one rule? (It's actually 57.3 to one, but let's not worry about details.) To refresh your memory a little, it's something like this: if you're one degree off heading for 60 miles, you'll be approximately one mile off course. This magic works because there's approximately 6,000 feet in a nautical mile (6,076 feet is considered the standard navigational nautical mile.)

Let's apply the 60:1 rule to glide slope information: for every mile covered, your altitude loss will be 100 feet per one degree of glide angle. (One hundred feet equals approximately 1/60 of a mile.) So on a typical three-degree glide slope, you'll lose 300 feet per nautical mile.*

Again, assuming a typical ground speed of 120 knots on final, your VVI will be approximately 600 feet per minute. (Two miles per minute times 300 feet equals 600 feet per minute.)

This table will help you determine your approximate ground

**On a 2.5-degree glide slope, you'll lose 250 feet per nautical mile.*

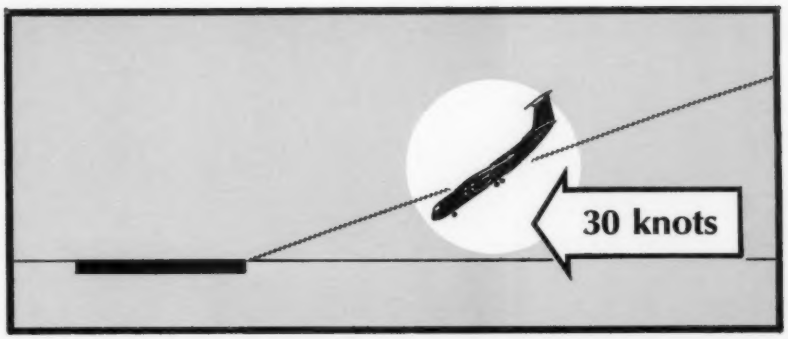
speed for a three-degree glide-slope:

VVI (fpm)	GS (knots)
300	60
450	90
600	120
750	150
900	180

Now the problem is fairly simple; convert your IAS to TAS using a factor of +2 per thousand feet of density altitude and pick your ground speed off the VVI. The difference will give you your altitude wind component. If this doesn't look too much like the reported surface wind, strange things will happen to your airspeed.

Let's try an example. You're on ILS final for Kirtland AFB, elevation, 5,352. IAS is 130 knots; altitude, 500 AGL (approx 5,900 feet msl); descent rate, 800 feet per minute. Ten-knot headwind reported for landing. That's all you need.

Convert your IAS to TAS: 130 KIAS + 12 (density altitude 6,000 feet) = 142 KTAS. Convert your VVI to ground speed: 800 fpm = 160 knots. Now you know you've got an 18-knot tailwind at 500 feet. Add the ten-knot headwind on the runway and you can expect an effective change of 28 knots between your present altitude and touchdown. If the change is gradual, no problem—you'll just have trouble keeping the aircraft down to glide slope as the IAS builds. But if it's really bad shear, expect an almost immediate IAS increase to nearly 160 knots and the accompanying "balloon" above glide slope. The temptation will be to pull more power off, even though you've got the throttles back due to the high ground speed and rate of descent required. If you gingerly pull the power back to flight idle and chase the glide slope, you might find yourself diving through the glide path headed for the approach lights. If you do nothing, you'll get some jibes about the lousy approach and long landing on the 13,373-foot runway.



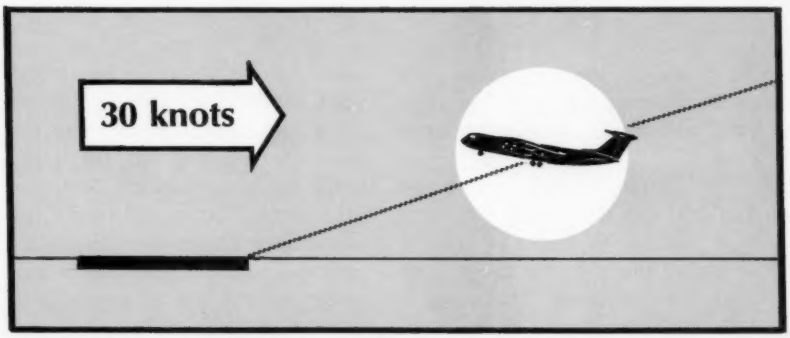
Tailwind: High VVI, lower power setting.

There's been many an argument in fly-safe circles as to which type of windshear is worse, tailwind to headwind (as in our example) or vice versa. Many an airframe has been crumped in both situations—so the point becomes a bit moot. In the tail-to headwind shear, a pilot usually gets in trouble by overreacting to a sudden increase in airspeed. In the headwind to tailwind shear, there'll be a sudden loss of airspeed—loss that could be beyond your aircraft's performance parameters to recoup.

But forewarned is forearmed. Incorporate these bits of wisdom into that memory bank you call "air sense," and you'll be a better pilot. If you've got a navigator, use him. If you don't, use your head.

Above all, if your approach suddenly turns sour and you can't figure out why, go around—and tell your grandkids about the day you encountered an insidious 28-knot windshear at Kirtland.

(Editor's note: If we go metric you can forget all these and many other formulas. Oh, well, maybe the world really is flat!)



Headwind: Low VVI, higher power setting.

Rescue Force

Vietnam is fast fading from memory. But the bar stories are soft cover for some hard-core heroics. This ode is dedicated to the SAR crewmen—then and now.

They brief at two, take off at four,
before the sun has risen
And fly an orbit every day,
to sit and wait and listen.
King flies a track of fifty miles
at twenty thousand plus
And hopes the day will be a bore,
but doubts that very much.

They pass the time with talk of home,
and then they hear the call:
An aircraft's down, the pilot's out,
but far behind the wall.
The effort's on, the Jollies launch,
a FAC is on the way.
The RCC is notified
to get them help this day.

The Sandys strafe, the hoist is down,
the FAC directs some strikes.
"You're takin' fire from eight o'clock,"
screams Sandy in the mike.
"Survivor's up, we're comin' out!"
All smile—his fate is known
As down a slope and round a ridge,
The Jolly sprints for home.

The rescue chopper needs some gas,
his fuel is mighty low;
So King swoops down from twenty thou
to rendezvous below.
AR complete, they've got it made.
The field is just in sight.
They cross the fence, relax a bit,
and know they've done it right.

The Rescue Force is homeward bound,
another man they've saved.
But tomorrow is another day;
they pray their luck won't change.
The men who fly the long-range SAR,
they risk their lives this way
To buy a chance for those gone down,
to fight another day.

by Maj J. Alan Hassell
MAC Aircrew Stan/Eval

1977 MAC Safety

The MAC Trophy for Flying Safety

To the MAC air force or service with the most effective flying safety program as determined by aircraft accident rate.

Twenty-First Air Force

MAC Distinguished Wing Flight Safety Award

Presented to the best unit from among those receiving the MAC Flight Safety Achievement Award.

616th Military Airlift Group, Elmendorf AFB

MAC Support Safety Achievement Awards

Recognizes units with excellent quality of services rendered, based on safe mission accomplishment.

TUSLOG Det 175
Det 3, 435 TAW, Hellenikon AB
603 MASS, Kadena AB
605 MASS, Andersen AB
608 MASS, Ramstein AB
610 MASS, Yokota AB
611 MASS, Osan AB
625 MASS, Torrejon AB
627 MASS, RAF Mildenhall

MAC Flight Safety Achievement Awards

Presented to wings (or equivalent units) that are accident free and have effective flight safety programs.

37 ARRS, F. E. Warren AFB
60 MAW, Travis AFB
63 MAW, Norton AFB
89 MAG, Andrews AFB
314 TAW, Little Rock AFB
317 TAW, Pope AFB
374 TAW, Clark AB
375 AAW, Scott AFB
435 TAW, Rhein Main AB
437 MAW, Charleston AFB
438 MAW, McGuire AFB
443 MAW, Altus AFB
616 MAG, Elmendorf AFB
1550 ATTW, Kirtland AFB

Award Winners

MAC Safety Officer of the Year Awards

Presented to one primary duty and one additional duty safety officer for oustanding achievement in support of the MAC safety program.

Primary Duty
Capt Robert C. Allen
89 MAG, Andrews AFB

Additional Duty
Capt Mark W. Hodges
Det 1, 39 ARRW, Homestead AFB

MAC Safety NCO of the Year Awards

Presented to one primary duty and one additional duty safety NCO for outstanding achievement in support of the MAC safety program.

Primary Duty
MSgt Francis J. Cleary
76 ABG, Andrews AFB

Additional Duty
MSgt Marion G. Mann
611 MASS, Osan AB

Fools Rush In

by Flight Lieutenant D. E. Ozanne
Royal Australian Air Force

Macho and machine mixed in the proper ratio reinforce the "mortality" of man.

I was a Pilot Officer at the time (the same as a Second Lieutenant in the USAF). My training had progressed well and I had been a Huey commander for all of six months. If you had asked me then, I would have said I was as safety-conscious as anyone. That is, until my first big rescue mission occurred.

We were stuck out in the bush at the time, living in tents with the Army and assisting them to play war games; we had a secondary role of rescue, should the occasion arise. It did—well after dark, on the worst night I had seen. The area was dotted with thunderstorms. Continuous lightning starkly illuminated the tents and aircraft amid newly formed streams from the torrential rain. In all this weather an Army "digger" had driven his jeep off a cliff, crushing his chest and legs. He needed immediate hospitalization.

As the standby rescue crew we were immediately called and, after much cursing at the weather, took off and climbed to treetop level. It never occurred to me that the weather might be too bad to fly in; after all, this was a life or death mission. The night was black and the pouring rain reduced visibility to about 20 yards in the Huey's searchlight. Navigation was close to impossible and we switched our cursing from the weather to whoever was responsible for not tuning the proper navaid frequency at the proper time.

Hover taxiing over the treetops and using the searchlight enabled us to locate the pad where our injured digger lay. I had been there numerous times, so navigation was not that much of a problem. But once we had the injured soldier in the aircraft we were suddenly struck with the immensity of the task before us. We had to fly our survivor to the nearest hospital—which was situated 65 miles away in a small town with no airfield or navigational aids.

At this point any truly safety-conscious pilot would have quit.

But for reasons of pride and the immense pressure of trying to save a life, I elected to continue. After all, the town we were flying to was right on the coast, so all we had to do was reach the coast and fly north to locate it. This sounded reasonable at the time, though all of us on the crew were starting to worry considerably.

Finding the coast, which was about 15 miles from the pickup point, took us another 45 minutes of hover taxiing. By now the question of fuel was beginning to arise. We had about two hours and 20 minutes total and had been flying for a little over an hour. Have you ever tried to work out fuel consumption accurately for a 65-mile hover taxi?

This was our second chance to quit, but the influence of pride and the old we-can-hack-anything principle overcame any sensible objections. We continued. With a doctor on board, I figured if it got *really* bad we could just land on the beach and wait.

It wasn't long before the nice, level beach was replaced by jungle-covered cliffs descending directly into the ocean. This left us nearly IFR at about five feet over the water with the Pacific on one side and cliffs on the other, both starkly lit by sporadic lightning flashes piercing through pouring rain. We were also unsure of our position due to the weather and the total lack of navigational aids. All of our options had run out at the same time.

Even with everything against us, we were very reluctant to turn back and land on the beach, but turn back we did. During the turn we lost sight of the cliff and rather than risk hitting it, I pulled in power and climbed into the gloom. At 8,000 feet we broke out of the main cloud layer into a starlit night punctuated by towering thunderstorms. The feeling of relief at being clear of the ground was short lived. Now time was really against us. Fuel was low and the altitude was aggravating our patient's problems. To risk so much and lose him now was unthinkable.

I had exchanged one set of problems for another. We had 40 minutes of fuel to minimums and an hour to dry tanks. To make matters worse, I was night-VFR-on-top with no navigational aids available to help me get down through the weather. I only knew we were heading in the general direction of our original departure point.

"God smiles on fools and pilot officers."

At this time I really thought I had killed us all. I could think of nothing that could get us back through the murk and safely on the ground. A series of stupid mistakes had forced me into making the final error. But as these thoughts ran through my mind, the sheer enormity of the situation led me to think of one final possibility.

About a week before I had seen a demonstration of an Army 105mm "Star Light" shell. Fired to an altitude of about 10,000 feet, the flare illuminated a wide area. There was a battery of 105's at our town; if they could fire some flares we could locate our area and try a gradual descent through the cloud.

After much radio conversation the Army agreed to try. The rain had stopped and the cloud base was around 600 feet in their area, so all we had to do was locate their flares and we could pull it off—I hoped. Well, they say, "God smiles on fools and pilot officers," and He *did* that night. We saw the flares with our 20-minute fuel warning lights on and survived the blind descent through the cloud. From where we broke out to the town was about half a mile —a very routine flight, you might say. To get out of the aircraft and walk around was the sweetest thing you can imagine. A few weeks later we learned the survivor had lived, but suffered disabling injuries.

I tell this story every now and again to fellow aviators. Most of them laugh it off as just another bar story, but it did actually occur. The lessons I learned that night were very valuable; unfortunately, the price was high. I almost lost my life, a crew, and an aircraft learning them. It is extremely easy to methodically rationalize yourself into a situation where it is impossible to escape because you allow the mission to override all the rules of safety, as I did. So sit back and think about it. Making some sound decisions in the comfort of your office might prevent you from having to make far more critical decisions in a fear-soaked cockpit when the mission has become more important than the lives of yourself and your crew.

ABOUT THE AUTHOR

Flight Lieutenant Ozanne joined the Royal Australian Air Force in 1966 and for five years flew Hueys in Australia, New Guinea and Vietnam. As an allied exchange officer he was an instructor pilot with the 1551st Flying Training Squadron, Kirtland AFB, New Mexico, for three years. In May 1977, he returned to Queensland and is flying Chinook helicopters at Amberley RAAFB.

The Garbled Word

Here's a lighthearted look at some incident reports and the difficulties and delights of telling it like it is.

You wouldn't really expect incident reports to be funny. After all, there aren't many belly laughs in a belly landing or giggles in a gear problem. But every now and then, the words in the message provide a little inadvertent comic relief for those of us who have to wade through thousands of the things every year.

Since clear communication is getting a lot of attention lately, the *TMF* staff decided it might be a good idea to share a few of these literary diamonds-in-the-rough with our readers. If our examples teach you a little about readable writing, that's fine; but if they just give you a chuckle—well, that's fine, too.

What I Really Meant Was . . .

The English language is particularly vulnerable to the kind of minor error that makes a sentence mean something completely different than the writer intended. As Exhibit A, we present this line from a C-5 incident report:

THEY EXECUTED A FLYBY TO DETERMINE THE EXACT LOCATION OF THE NOSE GEAR.

You can almost hear the tower controller answering, "Well, it's located just aft of the radome and just forward of the crew entrance door."

Here's one that points out the versatility of modern air traffic control radar:

WHILE BEING VECTORED FOR APPROACH, A LARGE BIRD WAS OBSERVED AT THE 12 O'CLOCK POSITION.

The report doesn't mention whether or not the bird was transponder-equipped.

We're all familiar with the birdstrike problem and the danger of running into other airplanes, but a couple of messages recently brought to light a new hazard: the risk of colliding with an approach control facility. Keep in mind that the following events were reported by two units on opposite sides of the world and you'll understand the tremendous scope of the problem.

WHILE LEVEL AT 2,700 FEET MSL ON A SOUTHERLY HEADING, APPROACH CONTROL ISSUED TRAFFIC ADVISORIES. . . .

and

AFTER LANDING, APPROACH CONTROL ADVISED THE AIRCRAFT TO CONTACT GROUND CONTROL.

So far there haven't been any reports of flying towers or departure controls, but it's only a matter of time.

It's fairly common knowledge that automation of aircraft systems has come a long way, but we didn't realize just how far until we read this one:

WHILE PERFORMING THE BEFORE-LANDING CHECK, THE AIRCRAFT EXPERIENCED A BOGIE PITCH MALFUNCTION. THE AIRCRAFT ENTERED HOLDING AT 5,000 FEET. . . .

When you've got an airplane that can do all that, the days of human aircrews are undoubtedly numbered.

Apparently MAC's policy regarding its crews has been changing, anyway. The corrective action cited in one report was "ADMINISTRATIVE DOWNGRADE OF THE PILOT AND LOADMASTER IN COMMAND." But then, that's the price you pay for a command position.

Those Awful Acronyms

Military people have to live with so many acronyms, abbreviations, and technical terms that it's no surprise when somebody picks the wrong one. Here are a few eyebrow-raisers:

THE AIRCRAFT EXPERIENCED RUNAWAY TRIM CAUSING APPROXIMATELY A 15 PERCENT NOSE UP ATTITUDE.

Kinda makes you wonder what the other 85 percent of the airplane was doing. Then there's this one:

THE CREW NOTICED THE VVI INDICATORS CLIMBING AT 1,000 TO 1,500 RPM.

What is the standard climb power setting for a VVI, anyway?

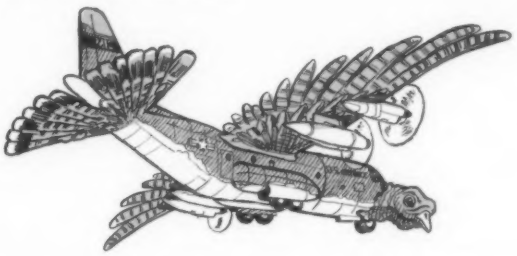
AT TEN DEGREES RPM, SMOKE WAS NOTICED COMING FROM NUMBER ONE ENGINE.

The message didn't say what percent EGT the smoke reached.

But acronyms and abbreviations aren't the only villains; capital letters and punctuation can do you in, too. For the morning briefing, somebody had to prepare a slide reading, "A C-130, flying Turkey Logistics Mission . . ." When translated to all capitals and no punctuation on the vu-graph slide, it came out like this:

A C-130 FLYING TURKEY LOGISTICS MISSION . . .

It's rumored that some of the Hercules drivers in the audience were a little less than impressed with the 130's new nickname.



Typos Take Their Toll

Sometimes just a touch of the keyboard can provide a world of amusement. A CT-39 had encountered a gear problem, and, according to the message, "THE AIRCRAFT WAS SLOWED TO 1800 KIAS." Or maybe the error was in the aircraft type—is there such as thing as an SR-39?

Here's one from a rather technical message regarding self-retaining bolts:

ARE THESE DOLTS TO REMAIN IN SERVICE IF NOT DEFECTIVE?

Sounds like the same question every promotion board has to face.

There have been all sorts of problems involving MAC aircraft over the years, but until recently, gossip wasn't one of them. Then a message arrived announcing that on a C-123:

NUMBER ONE RECIP ENGINE STARTED TO RUN ROUGH AND BEGAN TO LOOSE TONGUE.

You Provider drivers better not trust your airplane with classified information.

Putting It Plainly

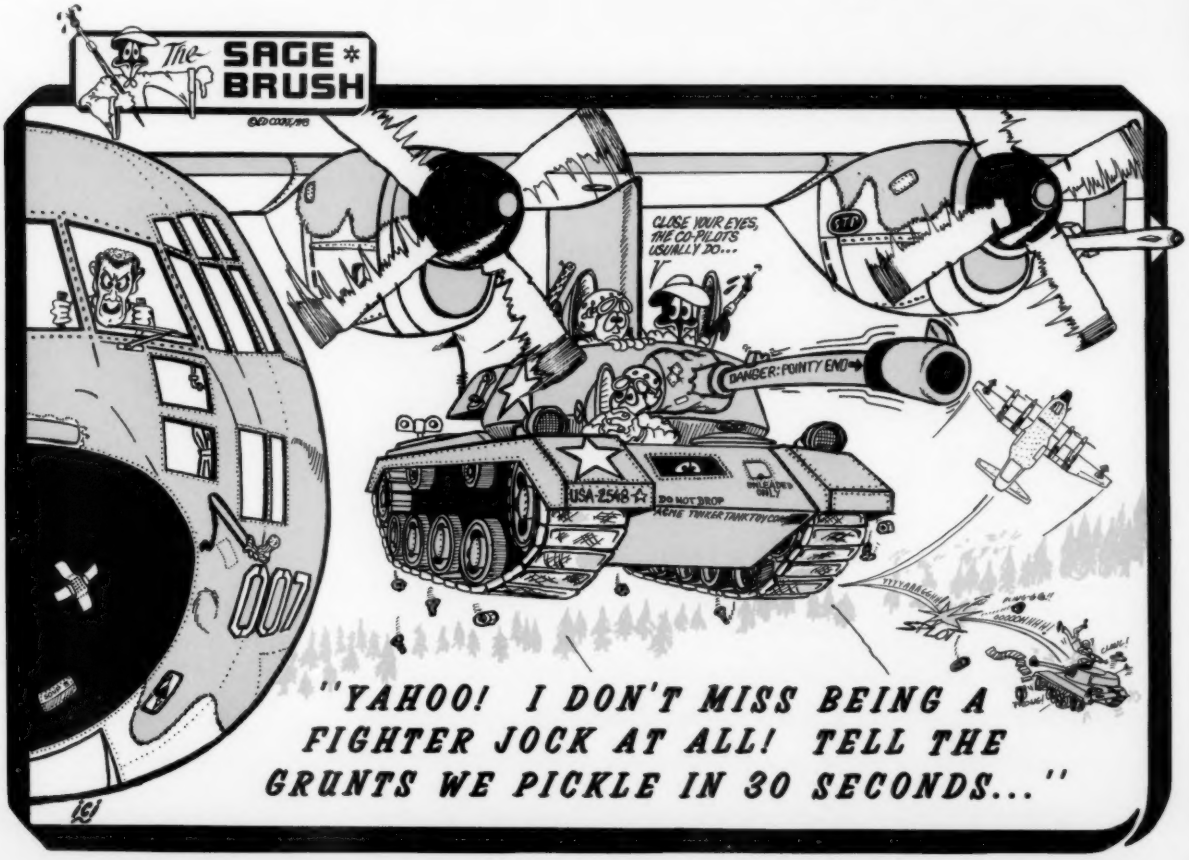
Of course, anything that can be done wrong can be done right. It *is* possible to write a message that's clear, direct, and leaves the reader in absolutely no doubt as to what you meant. As an example, we present this message—a followup on a Category I Materiel Deficiency Report:

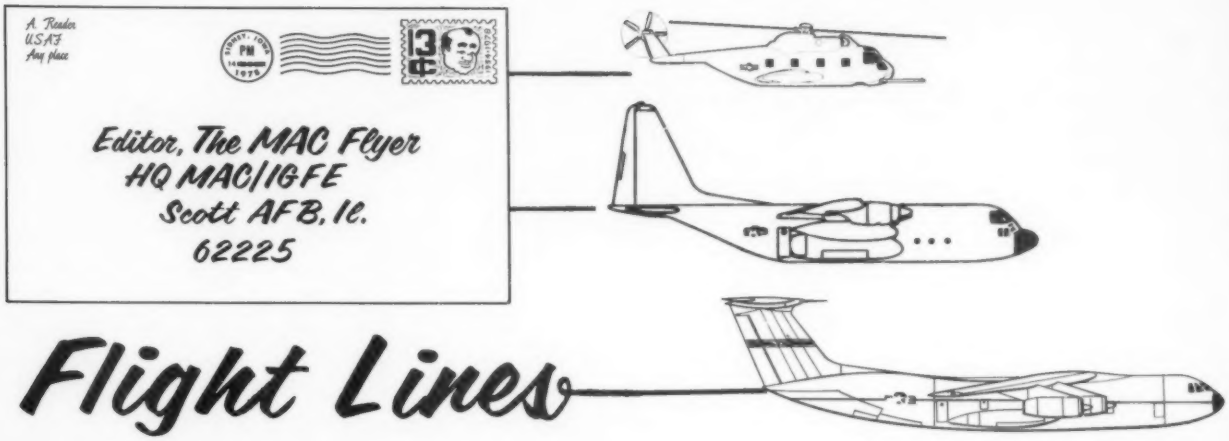
IT'S NO WONDER THE SYSTEM DOESN'T WORK. WE DIDN'T HAVE A CRYSTAL BALL TO TELL US THAT THE T.O. WAS GOING TO BE CHANGED ONE MONTH AFTER THE CAT I WAS FILED.

WE DON'T FEEL IT'S OUR RESPONSIBILITY TO REFEREE PETTY BICKERING BETWEEN ALC'S AS TO WHO HAS THE RESPONSIBILITY FOR AN ITEM. OUR THOUGHT IS THAT IF ONE IS NOT COMPETENT ENOUGH TO TAKE THAT SIMPLE CYLINDER APART THEN HE IS FAR FROM BEING QUALIFIED TO ANALYZE FAILURE. THERE IS ALSO AN ECONOMIC CONSIDERATION. JUST THINK OF THE MONEY THAT COULD BE SAVED IF SOMEONE WOULD QUIT PASSING THE BUCK AND STOP SHIPPING THAT CYLINDER FROM ONE SIDE OF THE COUNTRY TO THE OTHER.

WE JUST WANT TO KNOW IF THERE IS A POTENTIAL PROBLEM THAT COULD COMPROMISE SAFETY AND OTHER AIRCRAFT. IF YOU CAN'T DO THAT, JUST SAY SO AND WE WON'T SPEND THE TIME AND MONEY TO FILL THE REPORTS OUT.

Now, that's telling it like it is.


The SAGE BRUSH
CLOSE YOUR EYES, THE CO-PILOTS USUALLY DO...
DANGER: POINTY END
USA-2548
DO NOT DROP
"YAHOO! I DON'T MISS BEING A FIGHTER JOCK AT ALL! TELL THE GRUNTS WE PICKLE IN 30 SECONDS..."



Flight Lines

Helicopters Are Different

The December 1977 *The MAC Flyer* contained, as it usually does, very informative articles. I definitely enjoy it as do the rest of the members of this detachment.

I am curious as to why the cover did not have *at least one helicopter* on it.

We appreciate the information and hard work your staff does to keep this outstanding magazine flowing through all MAC and Air Force channels.

C. J. Spencer
Det 1, 33 ARRS/DA
APO San Francisco 96274

★ There was no intentional slight and just to make sure it wasn't a subconscious insult, we checked the rest of the magazine—there were two articles on helicopters. Of the 12 issues we printed in 1977, four had sling-wings on the cover. We frequently get letters, phone calls, and threats concerning our omissions — "not enough C-130's" — "more on C-9's"—even some from weather persons. We hope these are just good-natured jibes. We try not to overlook anyone and keep the mag oriented to all MAC aviators. Thanks for the kind words.

Crash Landing

Reference your December 1977 article, "Prepare for Crash Landing!" I thought the article was very interesting. It really did make me think —and I've been thinking ever since.

You pointed out that the Air Force is given the best clothing to survive a fire. But I know of at least one exception to that—one that I'm a part of, the aeromedical evacuation crew.

Our mission is to transport patients by air. In an emergency, it is our responsibility to get all of our patients out of the aircraft and to safety. But we're certainly not "dressed for crash landing" as you said. The flight nurses wear double knit polyester pantsuits and the med-techs wear cotton shirts and trousers. Not much protection—I wonder why?

TSgt Dale C. Ferguson
40th Aeromedical Evacuation Squadron
McChord AFB, Washington

★ We've been told that the experts are still looking for some material that's fire retardant, not super-expensive, and natty-looking for you folks who have to impress patients and passengers. But stuff like that is way down the pike. In the meantime, keep on doing what you're doing—thinking about ways to protect yourself and your patients. Thanks for the words and your concern.

More Herk Lovers

I understand you published an article on the C-130's history and role in the USAF in a recent issue.

As one of the original TAC pilots who received flight training at the Lockheed plant in Marietta, Georgia, I consequently delivered the first C-130 to the Air Force (tail number 550023) in December 1956, and later served with MAC as assistant chief pilot for the Hercules. I am extremely interested in the article and wonder if it would be possible to obtain a copy of the issue. It'll bring back a few memories and a bit of nostalgia for an "Old Herk Pilot."

Maj Al Huff, USAF (Ret)
Los Altos, California

★ Yes, Al, the issue you mentioned was our special on the "Twenty Years of Hercules" (January 1977). There are a couple of copies in the mail for you.

Special Issue

★ We've gotten quite a number of responses to our request for material for MAC's 30th Anniversary issue, next month. To those of you who took the time (and entrusted us with some valuable memorabilia), we say, thank you—and even if we can't use everything you sent, we'll return the booty along with a copy of the special issue.

We welcome letters from our readers and print all that space and good taste will allow. Send your letter to:

The Editor, *The MAC Flyer*
HQ MAC/IGFE
Scott AFB , IL 62225

We'd like to have signed letters; however, we'll withhold the name at the author's request. Letters concerning controversial subjects are acceptable, but please address specific issues rather than personalties. We reserve the right to print letters whole or in part. —*Ed.*

C-121 Super Constellation

This month's eye-waterer is the "Super Connie," and it's guaranteed to cause a lump in the throat of many an Air Force and Navy crewmember. It was a sleek, fast, high flyer back in those early days of "The World's Largest Airline." We wore Class A's and the veneer of an airline crew concealed the raging warrior within us.

The C-121, military version of Lockheed's commercial transport, joined the service in 1948; its predecessor, the C-69 Constellation, had already seen service in World War II. Until its retirement in 1966, the "Super Connie" performed as an airlifter,

a VIP hauler, and an airborne early warning aircraft. A VC-121E, the Columbine III, served as President Eisenhower's aircraft from 1954 to 1961.

The Super Connie was 116 feet long; its wings spanned 123 feet. Four Wright R-3350 engines, rated at 3,400 hp each, gave the aircraft a long-range cruise speed of 223 KTAS—fastest of MAC's recip fleet. Under peacetime conditions the Connie maxed out at 137,500 pounds and could tote 27,000 pounds of cargo, 47 litter patients, or 76 troops. Max range with three hours' reserve fuel was 2,700 miles.

Captain Kidd and Captain Kenna

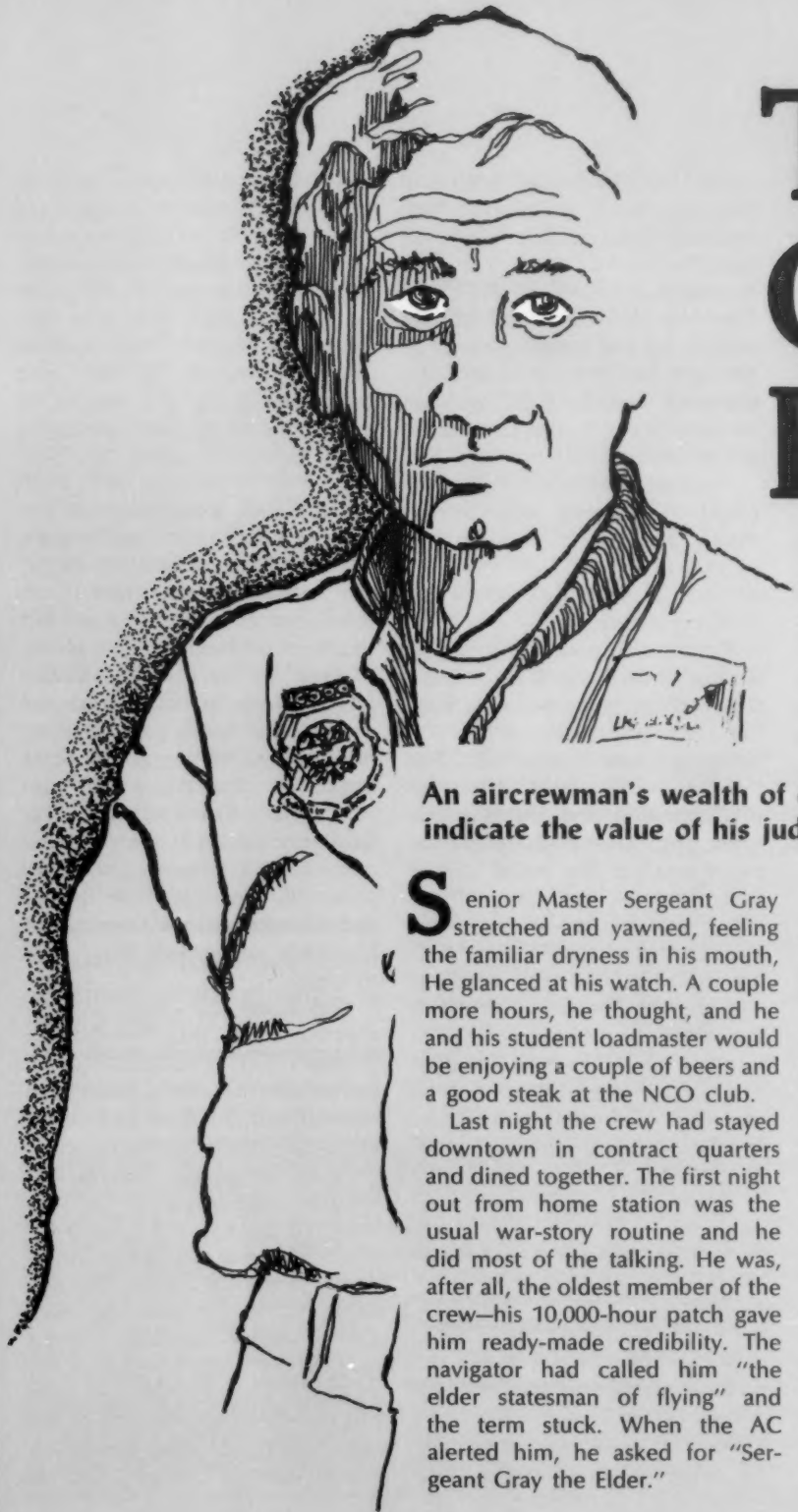
Captains Michael J. Kenna and John B. Kidd, 22 MAS, were on a C-5 local training mission out of Travis AFB, California. During gear retraction after a touch and go, the nose landing gear stuck in an intermediate position. They held at Travis VOR while troubleshooting the problem and using the Dash One emergency procedures. After a couple of attempts without success, they initiated a Conference Skyhook. "Try the procedure one more time." Still no results. The weather was getting worse at Travis—low visibility, wet runway, high croswinds—so the crew decided to divert to Altus AFB, Oklahoma. But they'd need to make a pit stop first, so they arranged an emergency joinup with a KC-135 from Castle AFB, California. Refueling rendezvous are usually directed by a navigator, but Captain Kenna and Captain Kidd had no Magellan on board —not required on locals. But with vectors from Center and sharp eyeballs, they found the SAC bird and hooked up. Captain Kidd had transferred 20,000 pounds of gas when the C-5's number four engine flamed out. He descended the Galaxy to 18,000 feet, restarted the engine, and then climbed back up to get an additional 70,000 pounds from another tanker.

While en route to Altus, the crew tried other procedures to extend the nose gear, but nothing worked. When they lowered the flaps during descent, the slat brakes locked the slats in the retracted position. They tried to reset the slat brakes using Dash One procedures, but that also didn't work.

While the runway was being foamed, Captain Kidd made a flyby of the tower for a visual gear check. The tower confirmed that the nose gear was trailing, in an intermediate position. With all the gear lowering methods exhausted, they decided it was time to land.

Captain Kenna flew a precise approach which centered the Galaxy on the narrow strip of foam. After the main gear touched down, he smoothly lowered the nose into the foam and stopped the C-5 by using reverse thrust and minimum braking.

The obvious professionalism and outstanding airmanship of Captains Kenna and Kidd during multiple emergencies prevented serious damage to the C-5. *The MAC Flyer* is proud to add, "Good Show."



The Old Pro

by SMSgt William H. Smith
41 MAS
Charleston AFB, South Carolina

An aircrewman's wealth of experience doesn't always indicate the value of his judgment.

Senior Master Sergeant Gray stretched and yawned, feeling the familiar dryness in his mouth, He glanced at his watch. A couple more hours, he thought, and he and his student loadmaster would be enjoying a couple of beers and a good steak at the NCO club.

Last night the crew had stayed downtown in contract quarters and dined together. The first night out from home station was the usual war-story routine and he did most of the talking. He was, after all, the oldest member of the crew—his 10,000-hour patch gave him ready-made credibility. The navigator had called him "the elder statesman of flying" and the term stuck. When the AC alerted him, he asked for "Sergeant Gray the Elder."

He lay still, reflecting on the past. The old prop jobs had been tough on loadmasters, but they provided an inexhaustible supply of humorous stories. In retelling them, he'd culled and refined the tales into a medley of epics. The crew had laughed and listened through four six-packs. His student, a three-striper named Hauss, was particularly impressed with his years of experience and was most respectful. The two young engineers were equally impressed; the old pro had held their attention for three hours on the flight deck earlier.

Smiling, he flipped the blanket off and gingerly made his way from the crew loft down to the cargo deck. He reached for a paper cup, pressed the white

spigot and watched the coal-black liquid fill the cup. He searched for the cream packets; there were none. He shuddered as he tasted the day-old coffee.

His ears sensed a pressure change and the mental picture of the engineer turning the pressurization control flashed through his mind. He shook the young loadmaster, who was asleep on the troop seat. "We'll be descending in a couple of minutes," the Sage said. "Better start getting it together."

The youngster shook his head, clearing the cobwebs, then nodded. Students seemed to be impressed by Gray's apparently telepathic abilities to recognize the onset of the descent. The trick was to sense the slight pressure change when the engineer moved the control during the descent checklist, but the student hadn't learned it yet.

The 40 K-loader moved into position behind the Starlifter and the freight crew swarmed aboard. He noted their experienced moves and grinned as he watched the student give directions. The freight crew was three steps ahead of the young loadmaster; the kid's instructions were completed before he gave them. The game played itself out and the five pallets soon rested securely on the K-loader. Sergeant Hauss signalled the driver to back off and the load was moved toward the terminal.

A 25 K-loader swung wide and lined up on the left rail; following it was a flatbed with six single pallets. Near the edge of the ramp, the driver brought a forklift to life and moved it toward the flatbed. Sergeant Gray watched the student wave his arms, listened to the exchange of shouts, and figured it was about time for him to step in. He walked to the ramp, picked up the preplan and absorbed the data: six pallets, 8,200 pounds each, all going to the same place — a no-sweat load.

Sergeant Hauss asked him about a hydraulic leak on the 25 K; he scanned it from the ramp.

"They all leak," he told the kid. "Let's get going."

The forklift loaded a pallet on the far end of the K-loader and the loading crew inserted a steel bar aft of the pallet to block it while the fork backed out. The K-driver then raised the back end of the loader and dropped the front, and three guys started the pallet moving. The pallet rushed down the inclined bed. At the last instant the driver raised the front of the K-loader and the pallet rumbled into the Starlifter with enough speed to carry it to the middle of the cargo compartment. The wide-eyed student nervously backed into the small recess aft of the left troop door. The "elder statesman" grinned. "You're seeing real pros at work," he boasted to his nervous apprentice.

He shot a glance at the K-loader operator—his face was full of fear.

Sergeant Gray directed rigging of the barrier net and turned his attention to the rear of the 25 K. The next pallet was already in position. The bed tilted again and 8,200 pounds of cargo rocketed toward the aircraft. Gray sensed something awry and shot a glance at the K-loader driver—his face was full of fear. The Starlifter lurched forward as the pallet slammed against the aircraft six inches below the level surface of the ramp.

The C-141 taxied out at 0640—on schedule. It had been a good crew rest, Sergeant Gray thought. The loading incident had shortened their crew rest an hour, but they had hit the club with plenty of time for the beer and steaks. The student loadmaster almost spoiled the evening by relating the loading problems to the flight engineers. They seemed concerned at first—until Sergeant Gray downplayed the incident and assured them that he had personally inspected the latches and closed the doors. He made an impatient gesture meaning "not to worry."

Gray knew this crew really respected him; they sought his counsel on many matters. After all, he had one thing they didn't have —experience. But Gray had sweated just a little as the whole crew rode to the aircraft, hoping the kid had remembered his lecture from last night. There were a lot of problems associated with reporting a loading incident—paperwork, missing dinner at the NCO club, Stan/Eval and their infernal spot checks; the list went on indefinitely. An important point he had stressed was that a loadmaster *owed* the freight crew his loyalty so long as there was no

significant damage. And the two loadmasters and the freight crew *had* hammered out the bent sheet metal with tiedown devices. The only remaining evidence was in their memories.

He was still feeling uneasy as the Starlifter climbed through 20,000 feet. He mentally reviewed yesterday's events and couldn't find any fault with what he'd done. The over-center pins went in smoothly—and that alone proved that the ramp was okay. But he still had a gnawing in the pit of his stomach. Then he put his finger on the problem; he'd had to use the manual override to lock the ramp. That's no big deal, he rationalized; he'd used it many times before—but he had never had to use the override because of a pallet running into the ramp. He decided the over-center pins were the clincher. Everything was okay; he put the problem out of his mind.

Hauss pointed beyond the engineer to the glowing red light.

Sergeant Hauss cleared headset and began thumbing through section IV of the Dash Nine. They both looked up as an engineer came down from the flight deck and moved rapidly to the rear of the aircraft. Sergeant Gray motioned to the student and they followed the flight engineer. As they cleared the aft-most pallet, they met the engineer returning. Sergeant Hauss pointed beyond the engineer to the glowing red light in the semidarkness.

In an open, grassy field, a little boy flew his kite high in the sky. He anchored the kite to a nearby bush and watched it fly sedately. As he gazed upward, something caught his eye. It was the contrails of a large aircraft. As he watched it come closer, he could tell it was a jet transport, grey and white. Suddenly, the aircraft became three distinct parts, separated by blue sky.

The squadron commander looked over the crew list for the hundredth time; there was no question in his mind. The crew couldn't be blamed for this one. "Materiel failure, pure and simple," he said aloud. "Sergeant Gray was an old pro."

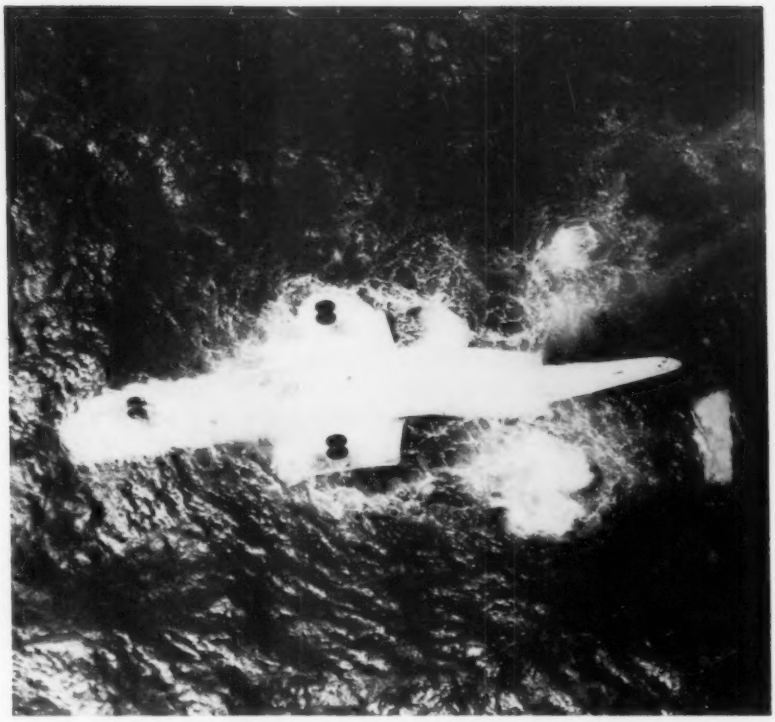
ABOUT THE AUTHOR

Senior Master Sergeant Smith began his Air Force career in 1951 with an assignment to Chateauroux, France. He started flying in 1960 as a C-124 loadmaster; he now has over 15,000 accident-free flying hours in the Globemaster and C-141. He is a distinguished graduate of the MAC NCO Academy and an instructor loadmaster. Sergeant Smith is currently the Loadmaster Superintendent for the 41 MAS, Charleston AFB, South Carolina.

deep six

A first-person account. A crewmember tells of his experience in a major aircraft accident.

by 1st Lt Larry D. Shepherd
Det 5, 39 ARRW
Tyndall AFB, Florida



In the summer of 1977, a crew of rescuers became rescuees when their Jolly Green suffered a mechanical failure that necessitated a water landing. Lieutenant Larry D. Shepherd was the CH-3's copilot during the emergency. Our thanks to Lieutenant Shepherd for sharing his first-person account of the mishap with us.—Ed.

I had been with the rescue detachment at Tyndall for about two months when the accident happened. We'd started off the day with an alert-crew briefing by Major Knitter, our AC. I hadn't been out of flight school too long and I was glad that he thoroughly briefed the drone recovery and SAR procedures.

I hung around the det for several hours working on my additional duties. About 1315 the crash phone rang; in a few seconds someone came running down the hall yelling, "We've got a mission, scramble the Jollies!" I couldn't believe it was real — I honestly thought the guy was kidding.

We picked up some sketchy information from the SOF before going to the aircraft. A Marine F-4 crew had punched out over the Gulf of Mexico. Last known position was the Tyndall tacan 141 radial at 71 DME; there was an F-106 orbiting the crash site. We ran to the Jolly Green.

I strapped in fast and started the scramble checklist. In a minute we were taxiing to the pad for a hover check. Major Knitter made the takeoff at 1325, ten minutes after the phone rang.

We climbed to 500 feet and turned toward the Gulf. I set up radio contact with rapcon and the aircraft orbiting the crash scene. We picked up a few more details: both F-4 crewmen had ejected, but only one parachute had been spotted. Major Knitter briefed ditching procedures and swimmer deployment and completed the presearch, smoke-drop and hoist operator checklists. He then asked for another Jolly to help us with the search.

We started losing the tacan signal so we climbed to 5,000 feet. As we approached 71 DME, the AC put the aircraft into a descending right turn. We were passing 3,000 feet when Sergeant Stalzer, our flight mechanic, spotted the survivor's red smoke.

The Major ordered a smoke marker dropped. We continued our descent; by the time we reached 500 feet the smoke was completely dissipated. The winds were blowing about 20 knots and the seas were churned to seven to nine feet by Hurricane Anita. We soon spotted the survivor about half a mile away in his one-man raft. We dropped another

smoke near him and came around to deploy Sergeant Rosler, a pararescueman. I had a hard time keeping the survivor in sight because his black life raft and dark flight suit didn't contrast with the rolling ocean. His white flight helmet helped some.

We dropped more smoke for reference and hovered over the downed pilot. Sergeant Rosler was lowered to the survivor but had trouble getting him into the rescue hoist because of the high seas. In a few minutes, a thankful Marine was aboard. We spotted an oil slick and some debris nearby and began our expanding-box search pattern for the back-seater.

"I smell smoke," the Major noted.

The flight mechanic replied, "Just lit up a cigarette."

In about five seconds Sergeant Franklin, our other PJ, told us that heavy smoke was coming from aft of the transmission area. Major Knitter immediately directed smoke-and-fume-elimination procedures and turned the chopper north toward land. We tried opening the personnel door and pilots' windows to clear the smoke, but it didn't work. Sergeant Stalzer suggested lowering the ramp and closing the cockpit windows. The AC approved; I opened the ramp with the cockpit control and the smoke disappeared rapidly.

I set the transponder to emergency and called Jolly 09, who was approaching the rescue site. Major Knitter discussed the possibility of a tail rotor failure with the other Jolly Green pilot. The flight mech said he thought the smoke was coming from the intermediate gearbox. I started the planned-ditching checklist and transferred control of the ramp to the cabin.

Things went from bad to worse. The master caution light came on, showing impending gearbox failure, but no other warning light illuminated to tell us which was the problem gearbox. Sergeant Stalzer and I checked the gearbox-chip-detector lights and circuit breakers. After the second system test, the intermediate-gearbox-chip-detector light stayed on. Major Knitter started a minimum power descent for a water landing.

I ran the gear-up before-landing check and we told Jolly 09 to get ready to come pick us up. The AC turned the helicopter into the wind and landed it smoothly from a 15-foot hover.

In the water, we kept the engines running while the pararescuemen brought the life raft to the personnel door. The H-3 was rolling quite a bit so Major Knitter ordered the gear put down and the anchor thrown out to help stabilize the helicopter. Sergeant Stalzer lowered the ramp and checked the tail pylon while Sergeant Franklin stepped out onto the loudhailer to look at things from the personnel door. Both confirmed that smoke was coming from the upper tail rotor gearbox cooling vent. The area around the intermediate gearbox was scorched. The flight mech closed the ramp to keep the water out.

In a couple of minutes I felt high frequency vibrations; the gearbox was about to fail. Major Knitter ordered us to abandon ship and I started the APU and shut down the engines. In the back, the PJ's and flight mechanic put the raft in the water and got the survivor aboard. As I was leaving my seat, the AC applied the rotor brake. The helicopter lurched to the left. I hung on. Major Knitter reapplied the brake and the blades stopped. I was the fourth person out of the aircraft; Sergeant Franklin and Major Knitter weren't far behind. As I swam, I looked back at the chopper and saw that it was rolling with the rough seas—enough for the main gear to come out of the water with each wave.

Jolly 09 was on the scene and picked up the men in the water as they swam toward the raft. Within eleven minutes, we were all safely aboard our brother Jolly Green and on our way back to Tyndall.

The story of the Jolly Green doesn't end with the crew's recovery to Tyndall. A few hours after the ditching, heavy seas rolled the helicopter inverted. Drone recovery boats were severely hampered by the squalls fostered by Anita and couldn't reach the belly-up chopper till the next day. Immediate salvage was impossible because of the rough seas and poor weather. The next morning the helicopter sank. Ships and planes returned to their bases to wait out the hurricane.

Six days later the submerged H-3 was located by using special sonar equipment; it was raised from the ocean floor by the USS Escape *and taken to NAS Pensacola for analysis. Teardown revealed a failed intermediate gearbox.*

Thorough preflight preparation helped the aircrew handle the in-flight emergency effectively.

As the accident board stated in its report, "The skill and flight discipline exhibited by the crew during the emergency contributed to preventing injury or loss of life to those on board."—Ed.

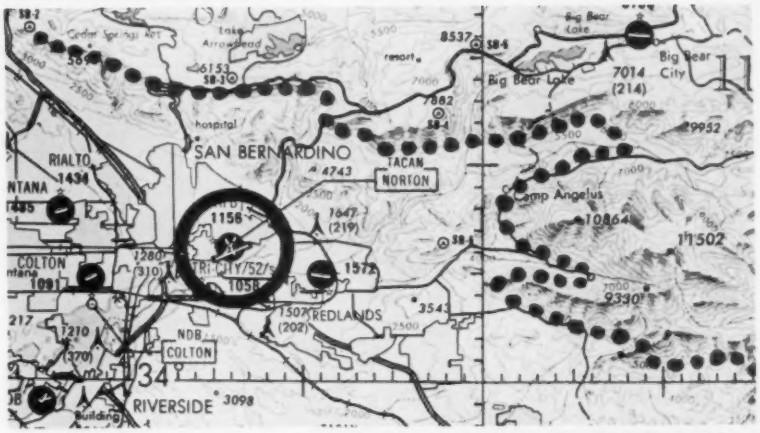
*Deja Vu**

*(day-zha-voo), [Fr. lit., already seen], the illusion that one has previously had a given experience.

Norton AFB

California

(Elevation 1,156ft.)



Terrain is a major hazard. The dotted line traces a 35-mile ridge line with elevations over 6,000 feet MSL.

Norton AFB is about 50 miles east of Los Angeles and shares two of the area's most publicized problems: smog and heavy traffic. Visibilities of three to five miles are common in the summer months, but this doesn't deter the local general aviation community from flying VFR. There's also plenty of military and commercial airline traffic to contend with, so "heads up" flying is a must.

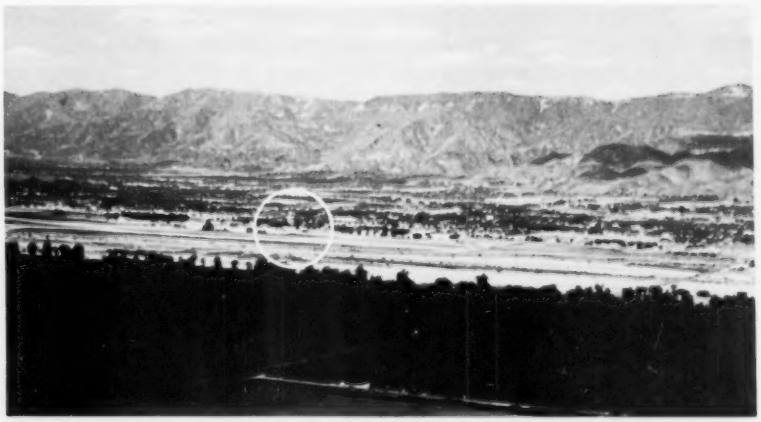
The San Bernardino Mountains provide another problem for Norton-bound aircrews—terrain rises abruptly north, south, and east of the field, reaching over 11,500 feet within 20 miles. All instrument approaches at Norton lead to runway 06 (10,000 by 200 feet); circling approaches to runway 24 must be made to the southeast because of terrain. You can expect a fairly short final (two or three miles) prior to glide slope intercept. Once you're established on the three-degree glide path, the prevailing tailwind may require a greater than normal rate of descent.

The combination of nearby hills, high temperatures, and high pressure altitudes can give you real performance problems on takeoff or missed approach; so if it's hot and your bird's heavy, consider a runway 24 departure.

Traffic, smog, and terrain—you get the picture. Extreme caution is the order of the day at Norton, particularly when the visibility's impaired by impurities.

—Adapted from ISD-Q6-47

The mountains off the departure end are obvious in this picture taken from over the outer marker on ILS final to runway 05.



On downwind for a circling approach to runway 23. The ridge line north of the field is in the background; the runway threshold is marked with a circle.

C.R. Terror

The Magnificent Major learns that mastering medevac can be a tricky task.

This is the life, Sammy. I'll never know why I put up with the trite tasks of hard-core airlift for so long. Flying medevac has got to be the best kept secret in the Air Force."

The Great One slid his seat back and propped up his feet. Controlled by the autopilot, the Nightingale climbed smoothly into the cloudless spring sky.

"Yes, sir," Sam responded, "the C-9 mission is sure a lot different from the rest of airlift. It's almost a pilot's dream—lots of flying time, a fine airplane, first class service, and pretty good working hours."

"Ya know, that's my only complaint, Sam; the hours are a bit too long. Take this mission, for example. Twelve hours to get from Scott to Travis is preposterous. I know we can make the trip in eight—all we have to do is press the ground pounders and the Pratt 'n Whitneys a little."

"I don't know, boss. We're on a pretty tight schedule already," warned the long-suffering right seater.

"Nonsense, number two. Tell Center we want to level at 250 and increase true airspeed to 500 knots."

The Nightingale winged rapidly southwestward and was on the ground at Kelly 20 minutes ahead of schedule. The firetruck could barely keep up with the C-9 as the Ace of Aeromed taxied at near-rotate speed.

C.R. lifted the cockpit telephone and a melodic chime sounded at the medical director's station.

"Cap'n Ward, sir."

"Right, O.B. I want to get minimum ground time, so keep the patient passers moving."

"We'll give it a try, sir. Do you see the ambus out there?"

"Er, uh, stand by."

C.R. gave the command for the engine-shutdown checklist and departed the pilots' station. In the back, he started issuing instructions to every white-clad person he could find.

"Sergeant Po, get the litter patients ready to go. Airman Perry, put the back steps down. Let's get hopping!"

"Ah, 'scuze me, Major," preempted Captain Ward. "Aren't you a bit out of your element, sir? Anyway, we need a bus to put the people on before we can take 'em off the plane."

"Uh, I, er, just thought you might need my command voice to get things moving back here." C.R turned to Sergeant Torque. "Go get the petrol pumpers pumping. Put on a full load." He then trotted back to the cockpit and instructed, "Sammy, go call the patient airlift center and find out where the bus is. I'll go set pax service straight and drop by the snack bar."

Minutes later the Galumphing Gourmet was back, wiping taco

sauce off his chin. "What'd they say, Sammy?"

"The usual—'they're on the way.' "

A full load of JP-4 had been forced into the C-9 by the time the hospital-persons arrived. Captain Ward efficiently directed the patient shuttle and the Impatient Pilot was able to start engines ten minutes ahead of schedule. They were well on their way to El Paso when the call came through from Center.

"Airevac 654, Fort Worth Center, contact your command post."

"You didn't hear that, Sammy," the Sneaky Skipper directed. "We're just now getting ahead of schedule."

Sammy withstood Center's queries for three minutes, but when asked to squawk emergency if they had problems other than transmitter failure, he overrode his boss' advice. Sam made the inevitable HF contact with Scott Airways and worked a phone patch with the command post.

" . . . divert immediately to Gila Bend Air Force Auxiliary to pick up the badly injured airman. All other stops on the mission are cancelled; proceed directly to Travis."

"Yawhoo! We can fly a real mission of mercy and cut four hours off—whiskey and women at the Travis O'Club. Sammy, request a clearance for Gila Bend."

The center's computer quickly processed the amendment. "Airevac 654, you're cleared to the Gila Bend vortac as requested, descend at pilot's discretion to 6,500 and call cancelling IFR."

"Great! Who said VFR was dead!" exclaimed the Master Manipulator of Medevacs as he yanked the throttles to idle and pointed the Nightingale's nose earthward.

Sammy warned, "Better take it easy—"

"What the hell's going on, Major!" Captain Ward blurted into C.R.'s ear. "I've got patients back here. I also have coffee, food, six I.V. bags and a bedpan on the floor."

"Take it easy, m'boy. You just aren't used to flying with the greatest tactical medevac pilot that ever clutched the controls. We've got an emergency pickup to make and I don't intend to lose any time doing it. We'll be on the ground in ten minutes—Captain."

The Aeromedical Aeronaut flew a reasonably successful approach and landing. It was slightly tarnished by tower's caustic comment, " . . . cleared to make a one-eighty at the end, speed permitting, and taxi to the ramp."

The Nightingale bobbed to a stop in front of a waiting pickup truck and two airmen lifted a stretcher from the back. "This'll be an engines-running onload. Don't waste any time," C.R.'s voice cracked over the PA system. "Sammy, get our clearance."

"We should check the weather for Travis, sir. We'll be getting in there well ahead of schedule," reminded the right seater.

"No time, number two. The 175 says clear all day with some isolated afternoon CB's—should be no sweat. If things look bad, we'll call 'em en route. Let's get going."

As the Nightingale approached the Sacramento Valley, the build-ups began to appear more numerous than C.R. had anticipated. Forty miles out, Center handed Airevac 654 off to Travis approach.

The approach controller cleared the Intrepid Incompetent for an ILS to runway 21 left and added, "Travis weather is 3,000 broken, visibility five miles, wind 040 at ten, intermittent 200 overcast, viz one-half mile with heavy rain showers."

"Another routine challenge. Let the folks in back know that they may be in for some jostling," the Rotund One commentated, "but the World's Greatest will insure their safe and timely arrival at good ol' Traverse."

The passengers gripped their armrests with white-knuckled hands as the C-9 did a bump-and-grind through the cumulus clouds and rain toward the final approach fix. With a surprising show of skill, and a bit of good luck, C.R. kept the flying hospital headed in the proper direction and right-side-up.

"Better hit the ignition override, Sam. This rain is getting really heavy and I sure don't want those engines to quit."

Sam dutifully set the ignition switch. The ILS indicators made a few oscillations and snapped off scale.

"Turn it off, quick! I lost the

ILS!" blustered C.R.

Sam turned off the ignition override just as the altimeters indicated decision height; he instructed, "Go around."

The Paunchus Pilot pushed a pudgy pawful of throttles to the firewall and started a 2-G pullup. Something caught his eye as the rain slackened momentarily. "Tally ho, Sammy! There's a runway over there to the right. Let's go land."

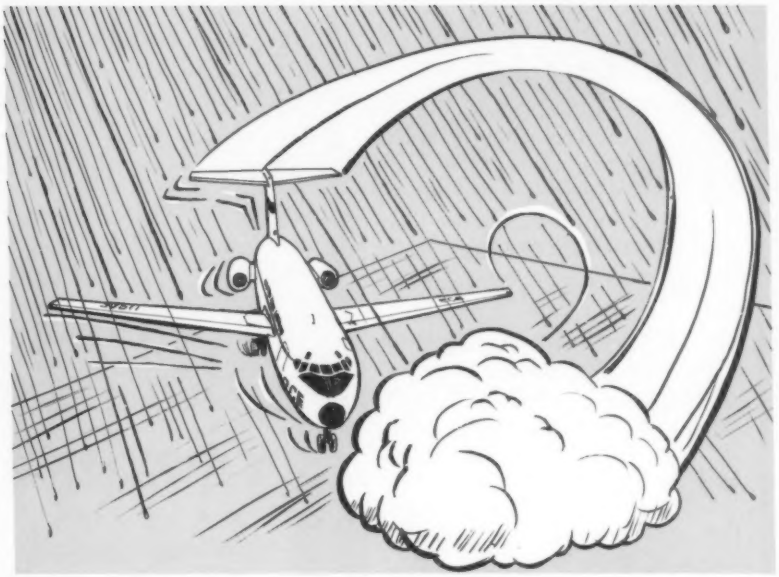
He banked the C-9 sharply and slammed the throttles to idle. The Nightingale dove for the offset runway; heavy rain pelted against the windshield.

Suddenly, intense silence filled the aircraft as the engines, choked by too much rain and the Unable Aeronaut's throttle technique, wound down. With power gone, the C-9 became increasingly difficult to control. "Get on the controls, Sam. We've got to get this thing straightened out!"

The Dynamic Duo managed to get the Douglas Bi-motor wings-level and nose-high just before touchdown. With 6,000 feet of concrete left, C.R. pushed hard on the brakes; the Nightingale fish-tailed, spun around lazily, and skidded backward to a stop in the overrun.

The ensuing silence was broken only by the pounding of rain. Sammy gasped, "Now that was spectacular, Boss!"

"I imagine that if it hadn't been for my superior skill and experience we wouldn't have made it at all," boasted the Hypocritical



Hero. "Of course, I can't belittle your contribution to getting this malfunctioning monster on the ground."

C.R. and Sammy unstrapped and descended the crew steps to meet the incredulous gazes of their former passengers and medical crew. The emergency response force gathered and the flight surgeon directed the Terrorific Team to an ambulance.

"Terror, I think the accident board was very easy on you—they only cited you with four causes in this accident," the squadron commander announced. "I'll never understand why Colonel Rock didn't insist on an F.E.B. and have your wings clipped for good. He left the corrective action up to me. I've taken a good hard look at your past performances . . . "

Beads of perspiration began to form on the Bulgy Bumbler's brow.

" . . . and I think I've found a position uniquely suited to your talents. You will be the assistant scheduler on the night shift at the patient airlift center," the colonel snorted. "Perhaps it will give you a little better understanding of our mission here."

C.R. saluted. "Thank you, sir," he said humbly and about-faced.

It could have been much worse, the Dejected Driver thought. But the ends of his mustache turned up as a smile crept across his countenance.

"How was it, Boss?" Long Suffering Sam had been waiting outside to learn of his leader's fate.

"Er, uh, not that bad, Sammy," replied the Absent-minded Aviator. "Say, didn't Lieutenant Glosslips say she'd be working nights at the patient airlift center?"

"Yes, sir, she did."

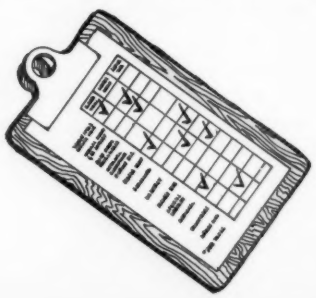
"Heh, heh. Not that bad at all."

Incomplete Checklist

Emergency checklists are designed to help you solve problems—provided you use them properly. A recent incident report involving an HC-130H from another command points out the hazards of improper or incomplete checklist use.

At 3,500 feet, the Hercules crew had depressurized the airplane in preparation for aerial refueling when the scanner reported fuel fumes in the cargo compartment. Unable to locate the source of the fumes, the crew completed the smoke-and-fume-elimination checklist up to but not including step 8, "Paratroop doors—open." The fumes didn't subside, so the crew repressurized the airplane. This didn't work either, and once again they ran the checklist but left the paratroop doors closed. Finally, the oxygen-breathing crew headed back home with "aux vent" selected on the pressurization panel; heavy fumes were present for the entire time.

Investigators found a fuselage tank vent line which was misaligned; the line hadn't been pressure-checked after installation because of an oversight in the T.O. They also found that the crew's failure to complete the smoke-and-fume elimination checklist had increased the risk in an already dangerous situation.



Don't Call Us

As the Galaxy rotated for takeoff, fuel began to leak from a piece of cargo—an improperly prepared diesel generator placed aboard at a non-USAF station. The crew cleaned up the spill and pressed on to the next stop, where an AGE specialist was summoned to defuel the generator and fix the leak. But the big bird developed maintenance problems; the cargo had to be transferred to another C-5, and the AGE maintainer couldn't work on the generator until the transfer was complete. He went back to his shop and waited, like the Maytag repairman, for a call that never came. Some time later history repeated itself as the second Galaxy took off, but this time the fuel spill was too much for the crew to handle. They brought the bird back, and the lonesome AGE repairman finally got a chance to do his job.

Quick Stoppers

Low-Pressure Emergency

The C-130A was number three in a formation downwind recovery after a drop mission when the number one hydraulic low-pressure warning light came on. The crew verified the loss of pressure and found no fluid in the reservoir. Then as the pilot lowered the gear on base leg, utility system pressure began to drop and the loadmaster confirmed that the utility reservoir was being depleted.

Anticipating a complete loss of hydraulic pressure, the pilot asked the first two aircraft in the formation to go around so he could have the full length of the runway available. Meanwhile, one of the loadmasters was trying to remove the filler cap from the utility system reservoir, but the cap was so hot it burned his hand. A second loadmaster used a crash axe to loosen the cap, then began passing back cans of spare hydraulic fluid to replenish the system.

As the pressure dropped, the flight controls became increasingly sloppy. The pilot was reluctant to bank the aircraft; instead, he lined up on final by using rudder and differential power. By the time the stricken Herk reached the threshold, the loadmasters, opening cans of hydraulic fluid with the crash axe, had managed to get two gallons of fluid into the reservoir. The pilot had enough control to flare the aircraft for a normal landing. As reverse thrust and emergency brakes brought the 130 to a stop, it began listing to the right. Fearing an imminent gear collapse, the crew shut down the propjet and departed the scene.

The close call was caused by an unlikely combination of unrelated failures: two hydraulic flare fittings, a pressure switch in the number three pump, and a collapsed gear strut.

Jolly Green Meets Mr. Clean

That "lemony-fresh scent" seems to be the popular thing in household cleaners lately. But as an HH-53 crew recently found out, there are some not-so-nice cleaners around that'll make anybody turn green.

The Super Jolly was about halfway into a four-hour training mission when a flight mechanic seated in the aft cabin began suffering from blurred vision, burning eyes, and generally dulled senses. He tried to communicate his distress to the rest of the crew but was unable to speak. A few minutes later, a crewmember noticed him slumped in his seat, unconscious. The AC terminated the mission and called for an ambulance. The crew carried the FM off the helicopter; he had regained consciousness by the time the ambulance arrived.

Investigators found about a quart of liquid residue in a compartment just aft of the ADF loop antenna. Although the liquid smelled like cleaning solvent, nobody knew exactly what the mystery goop really was. A sample in a paper cup was taken for analysis and left overnight; by morning, it had eaten through the cup and disappeared.

Qs

No-Notice Thunderstorms

When the C-130 departed an overseas base for an out-and-back mission, the weather was forecast to be good all the way. The only weather information available at the single en route stop was via a telephone briefing facility; the crew didn't use it to update destination weather, but headed back for their departure point using the original forecast (which was now seven hours old).

Shortly after the Herky lifted off on the return leg, the destination weather station issued a military weather advisory—a line of thunderstorms was developing across the 130's route of flight. The advisory was passed to destination ACC, but when the airlifters called in with their load information and ETA, nobody mentioned anything about weather. The crew requested and received destination weather from Center, but again nobody mentioned thunderstorms.

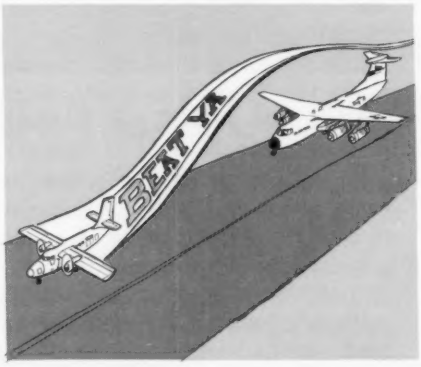
The first real warning the crew had was a vector from the center controller for weather avoidance. Checking their radar, the crew saw what appeared to be an "eight-to-ten-mile-thick light rain shower." They declined the vector and headed for the thinnest part of the radar return.

Minutes later the C-130 encountered severe turbulence, heavy icing, rain, and hail. Although the autopilot was engaged, the altitude varied 500 feet each way; airspeed fluctuated 50 knots. After about four minutes in the weather the Herk emerged with damage to the radome, two prop spinners, and an anti-icing boot.

Final's Clear — Right?

The C-141 had been cleared for takeoff on runway 24L at an overseas base. The crew checked final approach, but couldn't see very far; visibility was six-tenths of a mile in light rain and fog. The pilot was taxiing the Starlifter toward the displaced threshold to start the takeoff roll when a twin-engine civilian aircraft passed overhead—*and landed about 500 feet ahead of the MAC bird.* A hasty inquiry to the tower confirmed that the civil aircraft had been cleared to land on 25R, not 25L.

Wonder if the light-twin driver observed the 50-feet-over-the-T-tail rule?



Notable Quote

There will always be a demand for a certain number of old pilots to bury the bold pilots.

—The MATS Flyer, 1954

After Deadline

BACK ISSUES OF THE MAC FLYER from July '76 through this issue are readily available. Also, two of your favorite features, "Helicopter Pilots are Different" and the December 1977 "Sage Brush", are now available as single-page reprints. Call us or drop us a line and we'll send you what you need.

THE MAC C-5 CREW who airlifted the 45-ton magnet from Chicago to Moscow have been awarded the Mackay Trophy, which is presented annually for the most meritorious flight of the year by an Air Force crew. Nice going, guys.

NOT PAYING ATTENTION to basic formation flying rules brought a fighter and a tanker together during post-refueling maneuvering. A lack of communication and failure to initiate proper breakaway procedures also contributed to the mishap. A similar incident in MAC could reach Galactic proportions.

WE'RE STILL LOOKING for an associate editor. We need a pilot, captain or newly-minted major, with strategic airlift or helicopter experience. A background in journalism would help, but desire to write is essential. Preferred PCS date is in July, so apply now. Contact The Editor, The MAC Flyer, HQ MAC/IGFE, Scott AFB, IL 62225 or call autovon 638-3534.

NEXT MONTH we celebrate the 30th birthday of the Military Airlift Command. Features include a mini-history of MAC and a look at the airlift of the future. We'll have a special article for MAC wives and even C.R. will reminisce a little.

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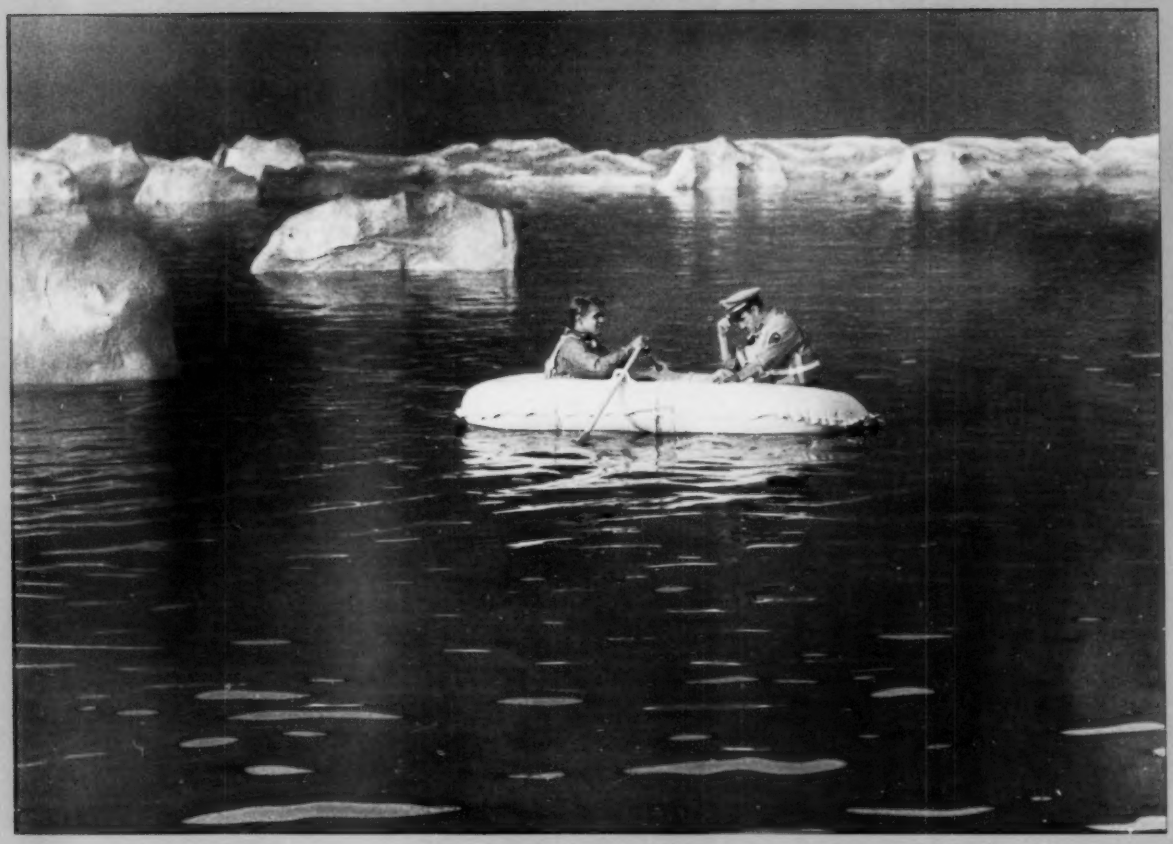
Touch 'n Go



"Let's have another look at the fuel chart."